HATCHERY COST REPORTS

FOR

FY 1990

DEPARTMENT OF FISH, WILDLIFE AND PARKS

Compiled and prepared by:

Thurston Dotson
Jim Crepeau
Gary Shaver
Jack Boyce
Stewart Kienow
Mark Hamilton
Daryl Hodges
Bob Hughes
Jim Schreiber
Bud Butterfield

Graphics by Bob McFarland

February 1991

TABLE OF CONTENTS

COST SUMMARY OF FISH PRODUCTION
FROM MONTANA'S HATCHERY SYSTEM

Introduction

This is the annual direct cost analysis of fish production for hatchery operations in Montana for FY 1990. It includes direct costs and direct costs plus depreciation for each hatchery. In addition, each hatchery is compared to the statewide average.

Costs of producing fish from the state's hatchery system are being continually examined to assure that sportsman dollars are utilized efficiently and effectively. Hatchery production is one of the few areas of the Department's functions where output can be accurately measured in relation to funds used. It is important to note that the costs reflected in this report include all direct hatchery costs to rear and stock 18 species or strains of fish. Hatchery expenditures to obtain eggs from wild spawning species, as well as broodstock development and maintenance of captive broodstocks, are included.

This report consists of the following data sheets:

A. Annual hatchery cost reports, by hatchery, and state summary. Because warmwater production costs cannot be compared directly with trout hatcheries, Miles City costs are listed separately.

B. Graph showing relative costs between hatcheries.

C. Summary sheet, by hatchery, listing hatchery inventories.

D. Comparison of total costs of fish produced. This lists the budget expenditures by categories.

E. Fish food purchased.

Equipment and capital construction is depreciated at 75 percent of the original cost. This assumes 25 percent salvage value is retained at the end of their useful life. Equipment is amortized over five years and capital construction over 25 years. Murray Springs Hatchery is owned by the Corps of Engineers (COE) and operated by FW&P under contract. The value used as depreciation is the cost of electricity to operate this facility. Electric power is a cost paid directly by COE and is not reflected in the operations budget of Murray Springs Hatchery.

Growth Model

Trout growth in hatcheries was defined by Haskell (1959) as "the growth of trout, under conditions of constant water temperature and adequate food supply, is such that the rate of increase in length is constant, except during time when metabolism is altered by factors such as disease, spawning, etc."

The equation describing fish is given as: $CF = W/L^3$ where W = weight in pounds of an individual fish and L = length in inches. The condition factor relates height and width to length. The condition factor is used directly in calculating weight-length relationships.

Variables

A number of conditions influence cost of fish production. A hatchery whose function is strictly production, i.e., they receive eyed eggs and continue incubation can hatch, rear and stock fish at a much lower cost per pound than a station that has brood or egg collection responsibilities. Brood stations, for instance, have a high cost in brood maintenance and development. Hence the costs to produce fish at these stations are higher when compared to purely production hatcheries. The cost of collecting eggs from wild populations is absorbed in the respective hatchery budget and is charged against fish production.

To more fully account for the growth of fish and develop an economics accounting for egg transfers from brood to production station, the following methods of egg transfer and accounting is being used. A basic assumption is made that fish development begins in the egg at some point where the size is effectively zero (0). When a two-inch fish is planted, it has grown a full two inches, not two inches minus the hatched length of approximately .75". This circumstance would only give credit for 1.25" of growth with no value given to broodstock maintained for the early egg development.

Using the procedures mentioned above, eggs which originate from hatchery-held brookstocks are credited for the first .25" of growth and is for all eggs produced irrespective of their disposition. Eggs taken from wild stock start their life in the hatchery at .20" and transferred to production at .25". This provides some growth credit to the collection stations of .05" of growth, which reflects some of the costs of collecting and processing eggs. Eggs obtained from other states or agencies enter the inventory at .25".

Using the above accounting methods eliminates the need for a monetary accounting of the value of eggs and gives the brood station growth credit instead. As an example, Jocko River Trout Hatchery produces approximately six million eggs per year.

Allowing .25" growth credit results in a cost of $7.13 per thousand. This is in the mid-range of surplus egg bids which vary from $4 to $10 per thousand. Although these accounting procedures reduce the costs to brood stations, special stocks such as WSCT and YSCT still have higher cost per unit of production than does purely production stations.

The size, number and species of fish produced have the greatest influence on final cost figure. Overhead, such as salaries and station maintenance, are reasonably stable. The cost to produce a pound of fish is lowest between the size of 2 and 12 inches. During this phase the cost of feed to produce a pound of fish is very low and efficient conversions are obtained. Above 12 inches, the cost per pound of fish growth increases. Fish in this category are considered brood in our system and a considerable amount of food is consumed during the annual development of sex products and is not reflected in growth in inches or pounds gained. Also broodstock go through extended periods of erratic feeding behavior. These circumstances increase costs for each growth increment. Some species, such as westslope cutthroat, require more food than other species to produce a pound of fish. Westslope can require up to twice the amount of food to produce a pound of fish than does the Arlee rainbow, for example.

Anaconda, Big Timber and Arlee are all brood stations with elevated expenses dictated by their brood function.

Somers is somewhat unique. Total production is from eggs collected from wild runs or shipped in from other states. Egg collection is absorbed in Somers' budget and is charged against fish production. Fish are normally stocked at a very small size and exhibit a high cost per pound produced because the fish are stocked before significant growth is attained. These circumstances result in an arbitrarily high cost per pound of fish produced.

Miles City Hatchery produces warmwater fish, therefore, the production cost cannot be directly compared to coldwater fish production. Production costs for Miles City are not included in the statewide averages, which is for the eight coldwater hatcheries. For these reasons, Miles City cost figures are presented separately, so they are not influenced by coldwater production.

Inventory and Cost Calculation

Inventory accounting is developed using the following guide:

+ Ending Inventory
+ Transfers Out
+ Plants
- Beginning Inventory
- Transfers In

= Net Production

Production may be expressed in any quantity, such as pounds or inches. Cost per inch was chosen for this report as the unit for which production costs are calculated. When total production from a unit is computed in inches, all costs with the exception of feed, may be calculated on the cost-per-inch basis. When this is done, the cost of feed for fish produced can then be added to any given size and total cost of that particular size computed.

Overhead (administrative) costs are not included. This is an unalterable cost the State will always have regardless of how or where fish are produced.

Formula for calculating cost is:

Cost (heat, light, labor, etc.) / inches produced = cost per inch produced. Cost per inch x inches (2,000, if referring to 1,000 fish 2" long) + (weight of 1,000 2" fish) x feed cost per pound gained = total cost per 1,000 fish 2" long.

Costs in this report are listed per 1,000 fish.

cost/mp

STATE SUMMARY BY HATCHERY

PRODUCTION FOR JULY 1, 1989 TO JUNE 30, 1990

	Beginning Inventory		Transfers In		Transfers Out		Fish Planted		Ending Inventory	
Unit	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds
Anaconda	99,630	11,412	4,482,878	7.1	4,153,091	5,555.4	169,108	7,662.3	260,309	7,025.4
Arlee	68,040	21,677	7,021,151	44.0	6,861,918	36.0	185,654	2,700.5	41,619	22,470.0
Big Timber	572,931	2,548	1,330,458	.1	802,149	137.7	669,479	5,345.0	431,761	2,299.0
Bluewater	438,500	4,907	1,382,191	8.6	875,822	3,488.0	541,780	39,098.0	403,089	3,969.6
Great Falls	88,983	9,765	2,046,056	12.8	201,531	1.3	1,670,055	42,892.0	263,453	7,715.0
Lewistown	970,656	20,639	3,425,257	2,200.0	833,418	823.0	2,388,195	75,833.0	1,174,300	22,202.0
Murray Springs	168,396	2,941	1,263,454	413.0	0	0	1,160,705	16,611.1	271,145	13,189.0
Somers	0	0	5,037,104	12.1	2,675,490	12.5	2,361,614	2,952.0	0	0
SUBTOTAL	2,400,264	73,721	25,988,549	2,697.7	16,403,419	10,053.9	9,146,590	178,143.9	2,845,676	78,870
Miles City	964,664	3,343	55,459,076	1,100.0	37,595,856	8.0	18,568,380	5915.5	259,504	479.0
TOTAL	3,364,928	77,064	81,447,625	3,797.7	53,999,275	10,061.9	27,714,970	184,059.4	3,105,180	79,360

costsum2/mp

COMPARISON OF TOTAL COSTS OF FISH PRODUCED

FOR JULY 1, 1989 TO JUNE 30, 1990

Item	Anaconda - WPTH		Arlee - JRTH		Big Timber - YSRTH	
	Previous Year	1990	Previous Year	1990	Previous Year	1990
Salaries and Benefits	76,677.38	72,099.46	80,915.00	83,760.00	52,142.59	56,243.53
Operation and Maintenance minus Food Costs	15,960.78	29,284.55	17,045.77	24,197.48	14,412.66	19,660.67
Equipment and Other Expenses	1,375.95	9,441.99	7,914.12	7,547.40	2,717.45	2,398.97
Total Direct Costs	94,014.11	110,826.00	105,874.98	115,504.88	69,272.70	78,303.17
Depr. of Capital Expend.	9,063.20	9,471.50	3,029.85	3,029.85	18,502.64	17,602.09
Grand Total	103,077.31	120,297.50	108,904.74	118,534.73	87,502.34	95,606.07

costsum2.td/mp

COMPARISON OF TOTAL COSTS OF FISH PRODUCED

FOR JULY 1, 1989 TO JUNE 30, 1990

Item	Bluewater - BWTH		Great Falls - GSTH		Lewistown - BSTH	
	Previous Year	1990	Previous Year	1990	Previous Year	1990
Salaries and Benefits	85,970.00	87,516.00	83,540.00	87,087.43	159,357.45	148,656
Operation and Maintenance minus Food Costs	33,090.28	35,502.81	30,481.15	32,201.53	71,225.60	75,828
Equipment and Other Expenses	178.00	0	0	0	0	7,728
Total Direct Costs	119,238.28	123,018.81	114,021.15	119,288.96	230,583.05	232,212
Depr. of Capital Expend.	1,960.67	4,885.22	57,510.30	69,084.85	17,200.00	15,880
Grand Total	121,198.95	127,904.03	171,531.45	188,373.81	247,783.05	248,092

costsum2.td/mp

COMPARISON OF TOTAL COSTS OF FISH PRODUCED

FOR JULY 1, 1989 TO JUNE 30, 1990

Item	Eureka - MSTH		Somers - FLSH		Miles City - MCFH	
	Previous Year	1990	Previous Year	1990	Previous Year	1990
Salaries and Benefits	85,895.00	84,251.00	42,221.73	45,670.81	72,877.14	83,562.87
Operation and Maintenance minus Food Costs	15,106.40	13,276.00	16,534.12	14,078.16	66,572.95	111,360.86
Equipment and Other Expenses	1,794.00	0	1,610.81	430.03	788.63	0
Total Direct Costs	102,795.40	97,527.00	60,366.66	60,179.00	140,238.72	194,923.73
Depr. of Capital Expend.	55,000.00	54,000.00	634.00	540.00	168,408.90	168,408.90
Grand Total	157,795.40	151,527.00	61,000.66	60,719.00	308,647.62	363,332.63

costsum2/mp

ANNUAL HATCHERY COST REPORT

Hatchery ==> Washoe Park Trout Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00040740 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	99630	11412.4	8.730	0.11454782	6.551	645602
Transfer In	4482878	7.1	631391.268	0.00000158	0.157	436917
Transfer Out	4153091	5555.4	747.577	0.00133765	1.486	1334944
Plants	169108	7662.3	22.070	0.04531009	4.809	498305
Ending Inventory	260309	7025.4	37.053	0.02698869	4.046	488872
TOTALS	0	8823.6				1239602

COST ==> 110826.00 <==
DEPRECIATION ==> 9471.50 <== Cost per inch produced (direct cost)= 0.0894
Cost per inch produced (direct cost + depreciation)= 0.0970

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.41	89.89	$37.78	97.53	$44.18
2.00	3.26	182.70	77.00	197.98	89.80
3.00	11.00	281.35	119.08	304.27	138.29
4.00	26.07	388.75	165.48	419.32	191.09
5.00	50.93	507.84	217.62	546.04	249.64
6.00	88.00	641.51	276.94	687.36	315.36
7.00	139.74	792.71	344.88	846.19	389.70
8.00	208.59	964.33	422.87	1025.46	474.09
9.00	296.99	1159.31	512.35	1228.07	569.98
10.00	407.40	1380.56	614.76	1456.96	678.78
11.00	542.25	1631.00	731.52	1715.05	801.95
12.00	703.99	1913.55	864.09	2005.24	940.92

Based on 16679.3 Lbs. Food Feed cost per lb. gained = 1.1942
Total feed costs ==> 10537.04 <== State Average ==> $0.4764
Avg. food cost/lb.= 0.6317

ANNUAL HATCHERY COST REPORT

Hatchery ==> Yellowstone River Trout Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00037050 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	572931	2548.0	224.855	0.00444730	2.290	824142
Transfer In	1330458	0.1	13304580.000	0.00000007	0.059	3325
Transfer Out	802149	4.6	174380.217	0.00000573	0.249	200562
Plants	669479	5344.7	125.260	0.00798337	2.783	1595660
Ending Inventory	431761	2299.0	187.804	0.00532470	2.431	607958
TOTALS	0	5100.2				1576713

COST ==> 78303.17 <==
DEPRECIATION ==> 17602.09 <== Cost per inch produced (direct cost)= 0.0497
Cost per inch produced (direct cost + depreciation)= 0.0608

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.37	50.02	$37.73	61.18	$44.18
2.00	2.96	102.16	77.00	124.49	89.80
3.00	10.00	158.57	119.08	192.06	138.29
4.00	23.71	221.36	165.48	266.01	191.09
5.00	46.31	292.66	217.62	348.48	249.64
6.00	80.03	374.61	276.94	441.59	315.36
7.00	127.08	469.33	344.88	547.47	389.70
8.00	189.70	578.95	422.87	668.26	474.09
9.00	270.09	705.60	512.35	806.07	569.98
10.00	370.50	851.40	614.76	963.04	678.78
11.00	493.14	1018.50	731.52	1141.30	801.95
12.00	640.22	1209.01	864.09	1342.97	940.92

Based on 7770 Lbs. Food Feed cost per lb. gained = 0.9576
Total feed costs ==> 4883.8 <== State Average ==> $0.4764
Avg. food cost/lb.= 0.6285

ANNUAL HATCHERY COST REPORT

Hatchery ==) Jocko River Trout Hatchery
Year ==) FY1990 (==
Condition Factor ==) 0.00044416 (==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	68040	21677.0	3.139	0.31859200	8.952	340635
Transfer In	7021151	44.0	159571.614	0.00000626	0.242	0
Transfer Out	6861918	36.0	190608.833	0.00000524	0.228	3196917
Plants	185654	27005.0	6.875	0.14545875	6.893	980986
Ending Inventory	41619	22470.0	1.852	0.53989764	10.672	321263
TOTALS	0	27790.0				4158531

COST ==) 118534.73 (==
DEPRECIATION ==) 3029.85 (== Cost per inch produced (direct cost)= 0.0285
Cost per inch produced (direct cost + depreciation)= 0.0292

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.44	28.88	$37.78	29.61	$44.18
2.00	3.55	60.02	77.00	61.48	89.80
3.00	11.99	95.69	119.08	97.88	138.29
4.00	28.43	138.14	165.48	141.06	191.09
5.00	55.52	189.64	217.62	193.29	249.64
6.00	95.94	252.45	276.94	256.82	315.36
7.00	152.35	328.83	344.88	333.93	389.70
8.00	227.41	421.05	422.87	426.88	474.09
9.00	323.79	531.36	512.35	537.91	569.98
10.00	444.16	662.02	614.76	669.31	678.78
11.00	591.18	815.31	731.52	823.32	801.95
12.00	767.51	993.48	864.09	1002.22	940.92

Based on 47132 Lbs. Food Feed cost per lb. gained = 0.8488
Total feed costs ==) 23586.92 (== State Average ==) $0.4764
Avg. food cost/lb.= 0.5004

ANNUAL HATCHERY COST REPORT

Hatchery ==> Bluewater Springs Trout Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00040000 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	438500	4906.8	89.366	0.01118996	3.036	969548
Transfer In	1382191	8.6	160719.884	0.00000622	0.250	345548
Transfer Out	875822	3488.0	251.096	0.00398254	2.151	1107239
Plants	541780	39098.0	13.857	0.07216582	5.651	2926473
Ending Inventory	403089	3969.6	101.544	0.00984794	2.909	701883
TOTALS	0	41640.2				3420499

COST ==> 122079.75 <==
DEPRECIATION ==> 3351.47 <== Cost per inch produced (direct cost)= 0.0357
Cost per inch produced (direct cost + depreciation)= 0.0367

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.40	35.84	$37.78	36.82	$44.18
2.00	3.20	72.58	77.00	74.54	89.80
3.00	10.80	111.13	119.08	114.07	138.29
4.00	25.60	152.38	165.48	156.30	191.09
5.00	50.00	197.24	217.62	202.14	249.64
6.00	86.40	246.61	276.94	252.49	315.36
7.00	137.20	301.39	344.88	308.25	389.70
8.00	204.80	362.48	422.87	370.32	474.09
9.00	291.60	430.79	512.35	439.61	569.98
10.00	400.00	507.21	614.76	517.01	678.78
11.00	532.40	592.66	731.52	603.44	801.95
12.00	691.20	688.02	864.09	699.78	940.92

Based on 42788 Lbs. Food Feed cost per lb. gained = 0.3758
Total feed costs ==> 15647.19 <== State Average ==> $0.4764
Avg. food cost/lb.= 0.3657

ANNUAL HATCHERY COST REPORT

Hatchery ==> Big Springs Trout Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00038020 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	970656	20639.0	47.030	0.02126293	3.824	2837871
Transfer In	3425257	2200.0	1556.935	0.00064228	1.191	1574768
Transfer Out	833418	823.0	1012.659	0.00098749	1.375	709381
Plants	2388195	75883.0	31.472	0.03177420	4.372	8469651
Ending Inventory	1174300	22202.0	52.892	0.01890658	3.677	3285459
TOTALS	0	76069.0				8051852

COST ==> 232212.00 <==
DEPRECIATION ==> 15880.00 <== Cost per inch produced (direct cost)= 0.0288
Cost per inch produced (direct cost + depreciation)= 0.0308

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.38	28.98	$37.78	30.95	$44.18
2.00	3.04	58.77	77.00	62.71	89.80
3.00	10.27	90.20	119.08	96.12	138.29
4.00	24.33	124.09	165.48	131.98	191.09
5.00	47.53	161.25	217.62	171.11	249.64
6.00	82.12	202.50	276.94	214.33	315.36
7.00	130.41	248.66	344.88	262.47	389.70
8.00	194.66	300.56	422.87	316.34	474.09
9.00	277.17	359.00	512.35	376.75	569.98
10.00	380.20	424.80	614.76	444.53	678.78
11.00	506.05	498.79	731.52	520.49	801.95
12.00	656.99	581.79	864.09	605.45	940.92

Based on 77128 Lbs. Food Feed cost per lb. gained = 0.3588
Total feed costs ==> 27292 <== State Average ==> $0.4764
Avg. food cost/lb.= 0.3539

ANNUAL HATCHERY COST REPORT

Hatchery ==> Giant Springs Trout Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00040000 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	88983	9765.0	9.112	0.10974006	6.498	582206
Transfer In	2046056	12.8	159848.125	0.00000625	0.250	386887
Transfer Out	201531	1.3	155023.846	0.00000645	0.253	50383
Plants	1670055	42897.0	38.932	0.02568598	4.004	5418398
Ending Inventory	263453	7715.0	34.148	0.02928416	4.183	731633
TOTALS	0	40835.5				5231321

COST ==> 119288.96 <==
DEPRECIATION ==> 69084.85 <== Cost per inch produced (direct cost)= 0.0228
Cost per inch produced (direct cost + depreciation)= 0.0360

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.40	22.92	$37.78	36.12	$44.18
2.00	3.20	46.51	77.00	72.92	89.80
3.00	10.80	71.45	119.08	111.06	138.29
4.00	25.60	98.41	165.48	151.23	191.09
5.00	50.00	128.07	217.62	194.10	249.64
6.00	86.40	161.11	276.94	240.35	315.36
7.00	137.20	198.20	344.88	290.64	389.70
8.00	204.80	240.01	422.87	345.66	474.09
9.00	291.60	287.22	512.35	406.08	569.98
10.00	400.00	340.51	614.76	472.57	678.78
11.00	532.40	400.54	731.52	545.81	801.95
12.00	691.20	468.00	864.09	626.47	940.92

Based on 31895 Lbs. Food Feed cost per lb. gained = 0.2812
Total feed costs ==> 11482.83 <== State Average ==> $0.4764
Avg. food cost/lb.= 0.3600

ANNUAL HATCHERY COST REPORT

Hatchery ==> Murray Springs Trout Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00035000 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	168396	2941.0	57.258	0.01746478	3.682	577767
Transfer In	1263454	413.0	3059.211	0.00032688	0.977	918531
Transfer Out	0	0.0	0.000	0	0.000	0
Plants	1160705	16611.0	69.876	0.01431112	3.445	3678274
Ending Inventory	271145	13189.0	20.558	0.04864187	5.180	1330237
TOTALS	0	26446.0				3512213

COST ==> 97527.00 <==
DEPRECIATION ==> 54000.00 <== Cost per inch produced (direct cost)= 0.0278
Cost per inch produced (direct cost + depreciation)= 0.0431

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.35	27.97	$37.78	43.34	$44.18
2.00	2.80	57.13	77.00	87.88	89.80
3.00	9.45	88.67	119.08	134.79	138.29
4.00	22.40	123.79	165.48	185.29	191.09
5.00	43.75	163.68	217.62	240.55	249.64
6.00	75.60	209.53	276.94	301.78	315.36
7.00	120.05	262.53	344.88	370.16	389.70
8.00	179.20	323.88	422.87	446.88	474.09
9.00	255.15	394.77	512.35	533.14	569.98
10.00	350.00	476.38	614.76	630.13	678.78
11.00	465.85	569.92	731.52	739.05	801.95
12.00	604.80	676.57	864.09	861.07	940.92

Based on 31020 Lbs. Food Feed cost per lb. gained = 0.5677
Total feed costs ==> 15014 <== State Average ==> $0.4764
Avg. food cost/lb.= 0.4840

ANNUAL HATCHERY COST REPORT

Hatchery ==> Flathead Lake Salmon Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00030000 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	0	0.0	0.000	0	0.000	0
Transfer In	5037104	12.1	416289.587	0.00000240	0.200	1007420
Transfer Out	2675490	12.5	214039.200	0.00000467	0.250	668873
Plants	2361614	2952.0	800.005	0.00124999	1.609	3778582
Ending Inventory	0	0.0	0.000	0	0.000	0
TOTALS	0	2952.4				3440035

COST ==> 60719.00 <==
DEPRECIATION ==> 540.00 <== Cost per inch produced (direct cost)= 0.0177
Cost per inch produced (direct cost + depreciation)= 0.0178

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.30	17.75	$37.78	17.91	$44.18
2.00	2.40	36.09	77.00	36.40	89.80
3.00	8.10	55.62	119.08	56.09	138.29
4.00	19.20	76.92	165.48	77.54	191.09
5.00	37.50	100.58	217.62	101.37	249.64
6.00	64.80	127.21	276.94	128.15	315.36
7.00	102.90	157.39	344.88	158.49	389.70
8.00	153.60	191.71	422.87	192.97	474.09
9.00	218.70	230.77	512.35	232.18	569.98
10.00	300.00	275.16	614.76	276.72	678.78
11.00	399.30	325.46	731.52	327.19	801.95
12.00	518.40	382.27	864.09	384.16	940.92

Based on 1161 Lbs. Food Feed cost per lb. gained = 0.3288
Total feed costs ==> 970.83 <== State Average ==> $0.4764
Avg. food cost/lb.= 0.8362

ANNUAL HATCHERY COST REPORT

Hatchery ==> Miles City Hatchery
Year ==> FY1990 <==
Condition Factor ==> 0.00030000 <==

	Number of Fish	Total Weight	Fish Per Pound	Wt. of Ave. Fish	Ave. Fish Length	Total Length (Inches)
Beginning Inventory	964664	3343.0	288.562	0.00346545	2.261	1670076
Transfer In	55459076	1100.0	50417.342	0.00001983	0.404	11091815
Transfer Out	37595856	8.0	4699482.000	0.00000021	0.089	9429503
Plants	18568380	5915.5	3138.937	0.00031857	1.020	8159382
Ending Inventory	259504	479.0	541.762	0.00184582	1.832	314870
TOTALS	0	1959.5				5141864

COST ==> 194923.73 <==
DEPRECIATION ==> 168408.90 <== Cost per inch produced (direct cost)= 0.0379
Cost per inch produced (direct cost + depreciation)= 0.0707

Fish Size In Inches	Weight of 1000 Fish	Direct Costs For Unit	Direct Costs State Ave.	Cost with Depr. For Unit	Cost with Depr. State Ave.
1.00	0.30	39.24		72.00	
2.00	2.40	86.50		152.00	
3.00	8.10	149.77		248.03	
4.00	19.20	237.07		368.08	
5.00	37.50	356.41		520.17	
6.00	64.80	515.80		712.31	
7.00	102.90	723.24		952.51	
8.00	153.60	986.75		1248.77	
9.00	218.70	1314.34		1609.11	
10.00	300.00	1714.01		2041.54	
11.00	399.30	2193.78		2554.06	
12.00	518.40	2761.65		3154.68	

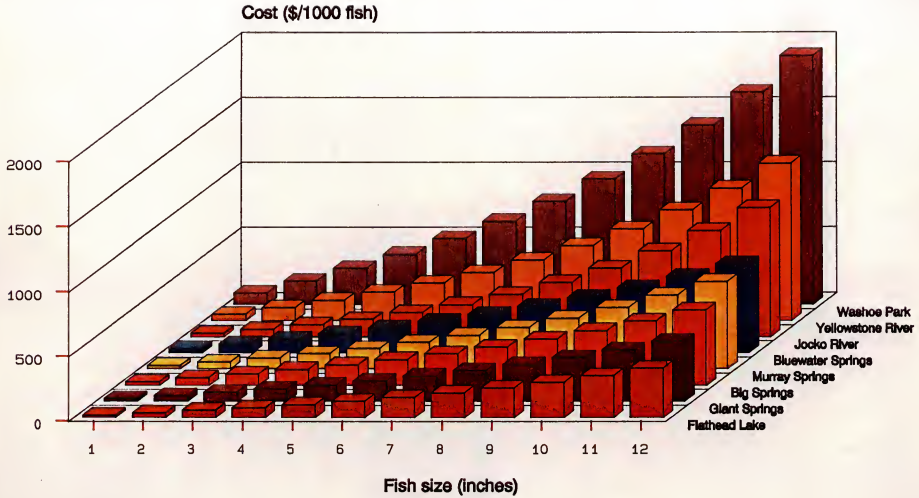
Based on 60281 Lbs. Food Feed cost per lb. gained = 4.4497
Total feed costs ==> 8719.25 <== State Average ==> _____<==
Avg. food cost/lb.= 0.1446

Appendix A

Comparative graph of eight coldwater hatchery production costs

Hatchery Cost Report

(FY - 90)



Direct costs

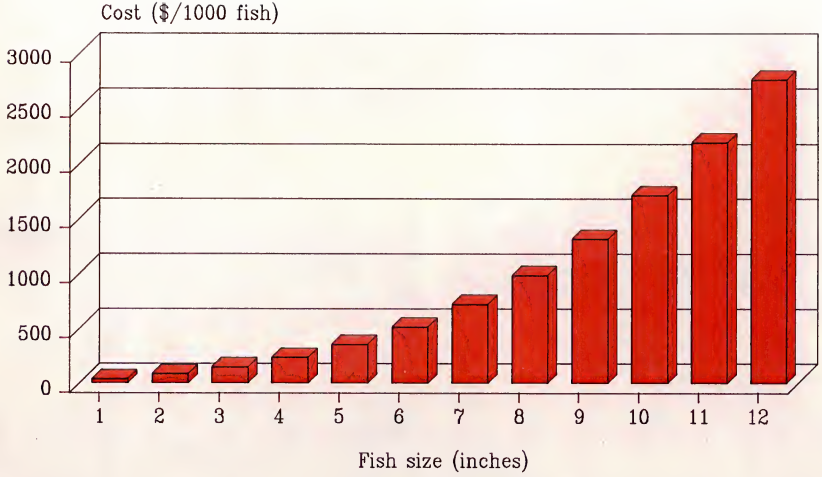
Appendix B

Graph of warm water fish production costs

Hatchery Cost Report

(FY–90)

Miles City



Direct costs

Appendix C

Statewide summary of fish food purchases compiled of all hatchery orders

ANNUAL FISH FOOD ORDERS

Statewide Summary
FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Totals	Pounds	37000	2550	13400	26250	53894	0	7550	46850	37150	8895
	Avg Price/lb	$0.2139	$0.4439	$0.4534	$0.3585	$0.3559	ERR	$0.2985	$0.3054	$0.3071	$0.3978
	Cost	7915.635	1131.975	6074.925	9410.205	19178.305	0	2253.45	14307.99	11407.21	3538.34

Grand Totals

Pounds	233539
Avg Price/lb	$0.3221
Cost	$75,218.04

ANNUAL FISH FOOD ORDERS

Statewide Summary
FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Totals	Pounds	3795	3454	2992	1166	3344	1518	1672	1078	0	6158
	Avg Price/lb	$1.0081	$1.0006	$0.9371	$0.9000	$0.8272	$0.6918	$0.6980	$0.9304	ERR	$0.8740
	Cost	3825.5668	3456.0064	2803.7812	1049.4308	2766.2668	1050.1304	1166.9768	1002.991	0	5382.1498

Grand Totals

Pounds	25177
Avg Price/lb	$0.8938
Cost	$22,503.30

Appendix D

Detailed fish food purchases from each hatchery operated by Fish, Wildlife and Parks

ANNUAL FISH FOOD ORDERS

Hatchery Washoe Park Trout Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Oate/Manufact	Pounds	0	100	100	200	150			150	100	400
07/14/89	Price/lb.	$0.0000	$0.4485	$0.4485	$0.3549	$0.3549			$0.3054	$0.3054	$0.3054
Biosponge	total costs	$0.00	$44.85	$44.85	$70.98	$53.24	$0.00	$0.00	$45.81	$30.54	$122.16
Oate/Manufact	Pounds			50	50				200	500	1100
10/11/89	Price/lb.			$0.4485	$0.3549				$0.3054	$0.3054	$0.3054
8iosponge	total costs	$0.00	$0.00	$22.43	$17.75	$0.00	$0.00	$0.00	$61.08	$152.70	$335.94
Oate/Manufact	Pounds			150	700	850			100		600
12/31/89	Price/lb.			$0.4485	$0.3549	$0.3549			$0.3054		$0.3054
8iosponge	total costs	$0.00	$0.00	$67.28	$248.43	$301.67	$0.00	$0.00	$30.54	$0.00	$183.24
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	0	100	300	950	1000	0	0	450	600	2100
	Avg Price/lb	$0.0000	$0.4485	$0.4485	$0.3549	$0.3549	$0.0000	$0.0000	$0.3054	$0.3054	$0.3054
	Cost	$0.00	$44.85	$134.55	$337.16	$354.90	$0.00	$0.00	$137.43	$183.24	$641.34

NO TOTALS

Pounds	5500
Avg Price/lb	$0.3334
Cost	$1,833.47

ANNUAL FISH FOOO OROERS

Hatchery Washoe Park Trout Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Oate/Manufact	Pounds	44	132	176		132					
07/05/89	Price/lb.	$0.9950	$0.9950	$0.9314		$0.8905					
8ioproducts	total costs	$43.78	$131.34	$163.93	$0.00	$117.55	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds					88					
07/06/89	Price/lb.					$0.8950					
8ioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$78.76	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds	88	88	88	0		88	220	880		
09/26/89	Price/lb.	$0.9950	$0.9950	$0.9359			$0.8450	$0.8450	$0.9541		
8ioproducts	total costs	$87.56	$87.56	$82.36	$0.00	$0.00	$74.36	$185.90	$839.61	$0.00	$0.00
Oate/Manufact	Pounds			440							
11/15/89	Price/lb.			$0.9450							
8ioproducts	total costs	$0.00	$0.00	$415.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	132	220	704	0	220	88	220	880	0	0
	Avg Price/lb	$0.9950	$0.9950	$0.9405	$0.0000	$0.8923	$0.8450	$0.8450	$0.9541	$0.0000	$0.0000
	Cost	$131.34	$218.90	$662.09	$0.00	$196.31	$74.36	$185.90	$839.61	$0.00	$0.00

GRANO TOTALS

	Pounds	2464
	Avg Price/lb	$0.9369
	Cost	$2,308.50

ANNUAL FISH FOOD ORDERS

Hatchery _Jocko River Trout Hatchery_
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Date/Manufact	Pounds	0			100	200			600		700
07/11/89	Price/lb.	$0.0000			$0.3549	$0.3549			$0.3054		$0.3054
Biosponge	total costs	$0.00	$0.00	$0.00	$35.49	$70.98	$0.00	$0.00	$183.24	$0.00	$213.78
Date/Manufact	Pounds								300	1000	650
10/11/89	Price/lb.								$0.3054	$0.3054	$0.3054
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$91.62	$305.40	$198.51
Date/Manufact	Pounds			50	800	1600				2000	1400
12/31/89	Price/lb.			$0.4485	$0.3549	$0.3549				$0.3054	$0.3054
Biosponge	total costs	$0.00	$0.00	$22.43	$283.92	$567.84	$0.00	$0.00	$0.00	$610.80	$427.56
Oate/Manufact	Pounds							750			1000
01/28/90	Price/lb.							$0.3054			$0.3054
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$229.05	$0.00	$0.00	$305.40
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

=

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
TOTALS	Pounds	0	0	50	900	1800	0	750	900	3000	3750
	Avg Price/lb	$0.0000	$0.0000	$0.4485	$0.3549	$0.3549	$0.0000	$0.3054	$0.3054	$0.3054	$0.3054
	Cost	$0.00	$0.00	$22.43	$319.41	$638.82	$0.00	$229.05	$274.86	$916.20	$1,145.25

GRANO TOTALS

	Pounds	11150
	Avg Price/lb	$0.3180
	Cost	$3,546.02

ANNUAL FISH FOOD ORDERS

Hatchery Jocko River Trout Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds						220				440
07/05/89	Price/lb.						$0.8405				$0.9541
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$184.91	$0.00	$0.00	$0.00	$419.80
Date/Manufact	Pounds										220
08/02/89	Price/lb.										$0.9541
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$209.90
Date/Manufact	Pounds	44	44					396			2200
09/25/89	Price/lb.	$0.9900	$0.9900					$0.8400			$0.9491
Bioproducts	total costs	$43.56	$43.56	$0.00	$0.00	$0.00	$0.00	$332.64	$0.00	$0.00	$2,088.02
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	44	44	0	0	0	220	396	0	0	2860
	Avg Price/lb	$0.9900	$0.9900	$0.0000	$0.0000	$0.0000	$0.8405	$0.8400	$0.0000	$0.0000	$0.9503
	Cost	$43.56	$43.56	$0.00	$0.00	$0.00	$184.91	$332.64	$0.00	$0.00	$2,717.73

GRAND TOTALS

Pounds	3564
Avg Price/lb	$0.9322
Cost	$3,322.40

ANNUAL FISH FOOO OROERS

Hatchery Yellowstone River Trout Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Oate/Manufact	Pounds	0		1450	450					250	400
07/14/89	Price/lb.	$0.0000		$0.4485	$0.3549					$0.3054	$0.3054
Biosponge	total costs	$0.00	$0.00	$650.33	$159.71	$0.00	$0.00	$0.00	$0.00	$76.35	$122.16
Oate/Manufact	Pounds										800
10/11/89	Price/lb.										$0.3054
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$244.32
Date/Manufact	Pounds										350
12/31/89	Price/lb.										$0.3054
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$106.89
Oate/Manufact	Pounds										200
03/23/90	Price/lb.										$0.3054
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$61.08
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	0	0	1450	450	0	0	0	0	250	1750
	Avg Price/lb	$0.0000	$0.0000	$0.4485	$0.3549	$0.0000	$0.0000	$0.0000	$0.0000	$0.3054	$0.3054
	Cost	$0.00	$0.00	$650.33	$159.71	$0.00	$0.00	$0.00	$0.00	$76.35	$534.45

GRANO TOTALS

Pounds	3900
Avg Price/lb	$0.3643
Cost	$1,420.83

ANNUAL FISH FOOD ORDERS

Hatchery Yellowstone River Trout Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds										308
07/05/89	Price/lb.										$1.0063
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$309.94
Date/Manufact	Pounds				176						132
09/07/89	Price/lb.				$0.9473						$1.0063
Bioproducts	total costs	$0.00	$0.00	$0.00	$166.72	$0.00	$0.00	$0.00	$0.00	$0.00	$132.83
Date/Manufact	Pounds					132	22				264
09/22/89	Price/lb.					$0.9734	$0.9950				$1.0060
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$128.49	$21.89	$0.00	$0.00	$0.00	$265.58
Date/Manufact	Pounds										132
09/26/89	Price/lb.										$1.0063
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$132.83
Date/Manufact	Pounds			396							
07/31/89	Price/lb.			$0.9836							
Bioproducts	total costs	$0.00	$0.00	$389.51	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
te/Manufact	Pounds			44							176
12/4&18/89	Price/lb.			$0.9563							$1.0063
Bioproducts	total costs	$0.00	$0.00	$42.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$177.11
Date/Manufact	Pounds					88					
1/24/90	Price/lb.					$0.9564					
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$84.16	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										264
02/13/90	Price/lb.										$1.0091
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$266.40
Date/Manufact	Pounds	220	44					88			440
03/23/90	Price/lb.	$1.0500	$1.0500					$0.9136			$1.0091
Bioproducts	total costs	$231.00	$46.20	$0.00	$0.00	$0.00	$0.00	$80.40	$0.00	$0.00	$444.00
Date/Manufact	Pounds								110		834
06/19/90	Price/lb.								$0.4213		$0.5965
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$46.34	$0.00	$497.48
TOTALS	Pounds	220	44	440	176	220	22	88	110	0	2550
	Avg Price/lb	$1.0500	$1.0500	$0.9809	$0.9473	$0.9666	$0.9950	$0.9136	$0.4213	$0.0000	$0.8730
	Cost	$231.00	$46.20	$431.58	$166.72	$212.65	$21.89	$80.40	$46.34	$0.00	$2,226.18

GRAND TOTALS

Pounds	3870
Avg Price/lb	$0.8948
Cost	$3,462.97

ANNUAL FISH FOOD OROERS

Hatchery Bluewater Springs Trout Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Date/Manufact	Pounds	0			2200				600	500	
07/11/89	Price/lb.	$0.0000			$0.3549				$0.3054	$0.3054	
8iosponge	total costs	$0.00	$0.00	$0.00	$780.78	$0.00	$0.00	$0.00	$183.24	$152.70	$0.00
Oate/Manufact	Pounds	50	100	500	500						
10/11/89	Price/lb.	$0.4485	$0.4485	$0.4485	$0.3549						
8iosponge	total costs	$22.43	$44.85	$224.25	$177.45	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds		100	2100	6600	1800			3700	600	
12/31/89	Price/lb.		$0.4485	$0.4485	$0.3549	$0.3549			$0.3054	$0.3054	
8iosponge	total costs	$0.00	$44.85	$941.85	$2,342.34	$638.82	$0.00	$0.00	$1,129.98	$183.24	$0.00
Oate/Manufact	Pounds			500	2000	6000		6000		5000	
03/15/90	Price/lb.			$0.4485	$0.3549	$0.3549		$0.3054		$0.3054	
Biosponge	total costs	$0.00	$0.00	$224.25	$709.80	$2,129.40	$0.00	$1,832.40	$0.00	$1,527.00	$0.00
Oate/Manufact	Pounds				300	1200				2000	
05/18/90	Price/lb.				$0.4833	$0.3758				$0.3362	
Rangens	total costs	$0.00	$0.00	$0.00	$144.99	$450.96	$0.00	$0.00	$0.00	$672.40	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Oate/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	50	200	3100	11600	9000	0	6000	4300	8100	0
	Avg Price/lb	$0.4485	$0.4485	$0.4485	$0.3582	$0.3577	$0.0000	$0.3054	$0.3054	$0.3130	$0.0000
	Cost	$22.43	$89.70	$1,390.35	$4,155.36	$3,219.18	$0.00	$1,832.40	$1,313.22	$2,535.34	$0.00

GRAND TOTALS

Pounds	42350
Avg Price/lb	$0.3438
Cost	$14,557.98

ANNUAL FISH FOOD ORDERS

Hatchery Bluewater Springs Trout Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds		44	44	220						
09/19/89	Price/lb.		$1.0470	$0.9882	$0.9473						
Bioproducts	total costs	$0.00	$46.07	$43.48	$208.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds		528	308							
03/15/90	Price/lb.		$1.1772	$1.0000							
Bioproducts	total costs	$0.00	$621.56	$308.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
e/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	0	572	352	220	0	0	0	0	0	0
	Avg Price/lb	$0.0000	$1.1672	$0.9985	$0.9473	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
	Cost	$0.00	$667.63	$351.48	$208.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

GRAND TOTALS

Pounds	1144
Avg Price/lb	$1.0730
Cost	$1,227.52

ANNUAL FISH FOOD ORDERS

Hatchery Giant Springs Trout Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Date/Manufact	Pounds	0								2000	
07/11/89	Price/lb.	$0.0000								$0.3054	
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$610.80	$0.00
Date/Manufact	Pounds		200	450	200	100					
10/11/89	Price/lb.		$0.4485	$0.4485	$0.3549	$0.3549					
Biosponge	total costs	$0.00	$89.70	$201.83	$70.98	$35.49	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds		550	1500	2100	5000			2500		
12/31/89	Price/lb.		$0.4485	$0.4485	$0.3549	$0.3549			$0.3054		
Biosponge	total costs	$0.00	$246.68	$672.75	$745.29	$1,774.50	$0.00	$0.00	$763.50	$0.00	$0.00
Date/Manufact	Pounds		700		500	5000			2000	4000	
04/31/90	Price/lb.		$0.4485		$0.3549	$0.3549			$0.3054	$0.3054	
Biosponge	total costs	$0.00	$313.95	$0.00	$177.45	$1,774.50	$0.00	$0.00	$610.80	$1,221.60	$0.00
Date/Manufact	Pounds		200	50		3000		800			
04/31/90	Price/lb.		$0.3900	$0.3900		$0.2800		$0.2400			
Rangen	total costs	$0.00	$78.00	$19.50	$0.00	$840.00	$0.00	$192.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	0	1650	2000	2800	13100	0	800	4500	6000	0
	Avg Price/lb	$0.0000	$0.4414	$0.4470	$0.3549	$0.3377	$0.0000	$0.2400	$0.3054	$0.3054	$0.0000
	Cost	$0.00	$728.33	$894.08	$993.72	$4,424.49	$0.00	$192.00	$1,374.30	$1,832.40	$0.00

GRAND TOTALS

Pounds	30850
Avg Price/lb	$0.3384
Cost	$10,439.31

ANNUAL FISH FOOD ORDERS

Hatchery Giant Springs Trout Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds	220	88								
09/19/89	Price/lb.	$0.9981	$0.9981								
Bioproducts	total costs	$219.58	$87.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	11	22								
09/20/89	Price/lb.	$1.1480	$1.0480								
Bioproducts	total costs	$12.63	$23.06	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	308									
12/18/89	Price/lb.	$0.9948									
Bioproducts	total costs	$306.40	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	176	220								
05/11/90	Price/lb.	$0.9950	$0.9950								
Bioproducts	total costs	$175.12	$218.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
[illegible]e/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	715	330	0	0	0	0	0	0	0	0
	Avg Price/lb	$0.9982	$0.9994	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
	Cost	$713.73	$329.79	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

[illegible]ND TOTALS

	Pounds	1045
	Avg Price/lb	$0.9986
	Cost	$1,043.52

ANNUAL FISH FOOD ORDERS

Hatchery Big Springs Trout Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Date/Manufact	Pounds	0			400	2000			2000	1000	
07/11/89	Price/lb.	$0.0000			$0.3549	$0.3549			$0.3054	$0.3054	
Biosponge	total costs	$0.00	$0.00	$0.00	$141.96	$709.80	$0.00	$0.00	$610.80	$305.40	$0.00
Date/Manufact	Pounds	50	100	150	450	4050			2500	1000	
10/11/89	Price/lb.	$0.4485	$0.4485	$0.4485	$0.3549	$0.3549			$0.3054	$0.3054	
Biosponge	total costs	$22.43	$44.85	$67.28	$159.71	$1,437.35	$0.00	$0.00	$763.50	$305.40	$0.00
Date/Manufact	Pounds	150	100	1800	2000	2200			4000	1200	
12/31/89	Price/lb.	$0.4485	$0.4485	$0.4485	$0.3549	$0.3549			$0.3054	$0.3054	
Biosponge	total costs	$67.28	$44.85	$807.30	$709.80	$780.78	$0.00	$0.00	$1,221.60	$366.48	$0.00
Date/Manufact	Pounds					800					
11/17/89	Price/lb.					$0.4131					
Rangen	total costs	$0.00	$0.00	$0.00	$0.00	$330.48	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	150	300	2200	2800	10000			7000	7000	
02/27/90	Price/lb.	$0.4485	$0.4485	$0.4485	$0.3549	$0.3549			$0.3054	$0.3054	
Biosponge	total costs	$67.28	$134.55	$986.70	$993.72	$3,549.00	$0.00	$0.00	$2,137.80	$2,137.80	$0.00
Date/Manufact	Pounds	150		550	1200	1800			6000	8000	
5/10/90	Price/lb.	$0.4485		$0.4485	$0.3549	$0.3549			$0.3054	$0.3054	
Biosponge	total costs	$67.28	$0.00	$246.68	$425.88	$638.82	$0.00	$0.00	$1,832.40	$2,443.20	$0.00
Date/Manufact	Pounds	50		1500	400						
05/11/90	Price/lb.	$0.4992		$0.4938	$0.4938						
Rangen	total costs	$24.96	$0.00	$740.70	$197.52	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds								2000		
05/16/90	Price/lb.								$0.3054		
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$610.80	$0.00	$0.00
Date/Manufact	Pounds		100								
05/25/90	Price/lb.		$0.4485								
Biosponge	total costs	$0.00	$44.85	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds								1800		
05/31/90	Price/lb.								$0.3054		
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$549.72	$0.00	$0.00
TOTALS	Pounds	550	600	6200	7250	20850	0	0	25300	18200	0
	Avg Price/lb	$0.4531	$0.4485	$0.4595	$0.3626	$0.3571	$0.0000	$0.0000	$0.3054	$0.3054	$0.0000
	Cost	$249.21	$269.10	$2,848.65	$2,628.59	$7,446.23	$0.00	$0.00	$7,726.62	$5,558.28	$0.00

GRAND TOTALS

Pounds	78950
Avg Price/lb	$0.3385
Cost	$26,726.67

ANNUAL FISH FOOD ORDERS

Hatchery Big Springs Trout Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds	44									
07/05/89	Price/lb.	$0.9950									
BioProducts	total costs	$43.78	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	308	132								
09/19/89	Price/lb.	$0.9950	$0.9950								
BioProducts	total costs	$306.46	$131.34	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	88									
11/07/89	Price/lb.	$0.9041									
Bioproducts	total costs	$79.56	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	352	176								
12/18/89	Price/lb.	$0.9950	$0.9950								
Bioproducts	total costs	$350.24	$175.12	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	176	352								
03/23/90	Price/lb.	$0.7409	$0.7409								
Bioproducts	total costs	$130.40	$260.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	968	660	0	0	0	0	0	0	0	0
	Avg Price/lb	$0.9405	$0.8595	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
	Cost	$910.44	$567.26	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

GRAND TOTALS

Pounds	1628
Avg Price/lb	$0.9077
Cost	$1,477.70

ANNUAL FISH FOOD ORDERS

Hatchery Murray Springs Trout Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Date/Manufact	Pounds	0			1200	400					
07/11/89	Price/lb.	$0.0000			$0.3549	$0.3549					
Biosponge	total costs	$0.00	$0.00	$0.00	$425.88	$141.96	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds				250	4700			150		
10/11/89	Price/lb.				$0.3549	$0.3549			$0.3054		
Biosponge	total costs	$0.00	$0.00	$0.00	$88.73	$1,668.03	$0.00	$0.00	$45.81	$0.00	$0.00
Date/Manufact	Pounds			300	850	3000			3250	1000	
12/31/89	Price/lb.			$0.4485	$0.3549	$0.3549			$0.3054	$0.3054	
Bioponge	total costs	$0.00	$0.00	$134.55	$301.67	$1,064.70	$0.00	$0.00	$992.55	$305.40	$0.00
Date/Manufact	Pounds								8000		
3/23/90	Price/lb.								$0.3054		
Biosponge	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,443.20	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	0	0	300	2300	8100	0	0	11400	1000	0
	Avg Price/lb	$0.0000	$0.0000	$0.4485	$0.3549	$0.3549	$0.0000	$0.0000	$0.3054	$0.3054	$0.0000
	Cost	$0.00	$0.00	$134.55	$816.27	$2,874.69	$0.00	$0.00	$3,481.56	$305.40	$0.00

GRAND TOTALS

Pounds	23100
Avg Price/lb	$0.3295
Cost	$7,612.47

ANNUAL FISH FOOD ORDERS

Hatchery Murray Springs Trout Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds		220	616	572						
09/19/89	Price/lb.		$0.9950	$0.9359	$0.8950						
Bioproducts	total costs	$0.00	$218.90	$576.51	$511.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	132	132	88	88	176					
07/07/89	Price/lb.	$1.2768	$0.9766	$0.9358	$0.8950	$0.8950					
Bioproducts	total costs	$168.54	$128.91	$82.35	$78.76	$157.52	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds		264								
08/10/89	Price/lb.		$1.0723								
Bioproducts	total costs	$0.00	$283.09	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	572	264								
12/18/89	Price/lb.	$0.9950	$0.9950								
Biodiet	total costs	$569.14	$262.68	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	308	396	396							
03/23/90	Price/lb.	$0.9973	$0.9973	$0.9473							
Biodiet	total costs	$307.17	$394.93	$375.13	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
e/Manufact	Pounds					704	176				
04/03/90	Price/lb.					$0.9064	$0.8609				
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$638.11	$151.52	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	44	220	176		792					
05/21/90	Price/lb.	$0.9973	$0.9973	$0.9473		$0.9064					
Bioproducts	total costs	$43.88	$219.41	$166.72	$0.00	$717.87	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds	616	44	132		616	176				
04/19/90	Price/lb.	$1.0945	$0.9590	$0.7363		$0.6857	$0.6386				
Bioproducts	total costs	$674.21	$42.20	$97.19	$0.00	$422.39	$112.39	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
_____	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
_____	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	1672	1540	1408	660	2288	352	0	0	0	0
	Avg Price/lb	$1.0544	$1.0066	$0.9218	$0.8950	$0.8461	$0.7498	$0.0000	$0.0000	$0.0000	$0.0000
	Cost	$1,762.94	$1,550.11	$1,297.91	$590.70	$1,935.89	$263.91	$0.00	$0.00	$0.00	$0.00

AND TOTALS		
	Pounds	7920
	Avg Price/lb	$0.9345
	Cost	$7,401.46

ANNUAL FISH FOOD ORDERS

Hatchery Flathead Lake Salmon Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Date/Manufact	Pounds	0									
____________	Price/lb.	$0.0000									
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
TOTALS	Pounds	0	0	0	0	0	0	0	0	0	0
	Avg Price/lb	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
	Cost	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

GRAND TOTALS

	Pounds	0
	Avg Price/lb	$0.0000
	Cost	$0.00

ANNUAL FISH FOOD ORDERS

Hatchery Flathead Lake Salmon Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
[illegible]e/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	0	0	0	0	0	0	0	0	0	0
	Avg Price/lb	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
	Cost	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

[illegible]NO TOTALS

	Pounds	0
	Avg Price/lb	$0.0000
	Cost	$0.00

ANNUAL FISH FOOD ORDERS

Hatchery Miles City Fish Hatchery
Year FY90

		Strtr	#1	#2	#3	#4	#5	3/32"	1/8"	5/32"	1/4"
Date/Manufact	Pounds	36400									
____________	Price/lb.	$0.2100									
Hay	total costs	$7,644.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds					44					
____________	Price/lb.					$5.0000					
Bio Kyowa	total costs	$0.00	$0.00	$0.00	$0.00	$220.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										1295
____________	Price/lb.										$0.9400
Minnows	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,217.30
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds										
____________	Price/lb.										
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTALS	Pounds	36400	0	0	0	44	0	0	0	0	1295
	Avg Price/lb	$0.2100	$0.0000	$0.0000	$0.0000	$5.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.9400
	Cost	$7,644.00	$0.00	$0.00	$0.00	$220.00	$0.00	$0.00	$0.00	$0.00	$1,217.30

GRAND TOTALS

	Pounds	37739
	Avg Price/lb	$0.2406
	Cost	$9,081.30

ANNUAL FISH FOOD ORDERS

Hatchery Miles City Fish Hatchery
Year FY90

		St #1 & #2	St #3 & #4	1.0mm	1.3mm	1.5mm	2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
Date/Manufact	Pounds				22	88	44				
07/05/89	Price/lb.				$1.2800	$0.9589	$0.9086				
Bioproducts	total costs	$0.00	$0.00	$0.00	$28.16	$84.38	$39.98	$0.00	$0.00	$0.00	$0.00
Date/Manufact	Pounds				88	132	132				88
07/10/89	Price/lb.				$0.6300	$0.6300	$0.5800				$0.5800
Bioproducts	total costs	$0.00	$0.00	$0.00	$55.44	$83.16	$76.56	$0.00	$0.00	$0.00	$51.04
Date/Manufact	Pounds					88	176				176
07/26/89	Price/lb.					$0.6400	$0.5900				$0.5900
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$56.32	$103.84	$0.00	$0.00	$0.00	$103.84
Date/Manufact	Pounds					88	220	220			176
08/08/89	Price/lb.					$0.6400	$0.5900	$0.5900			$0.5900
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$56.32	$129.80	$129.80	$0.00	$0.00	$103.84
Date/Manufact	Pounds					88	88	352			176
08/16/89	Price/lb.					$0.6300	$0.5800	$0.5800			$0.5800
	total costs	$0.00	$0.00	$0.00	$0.00	$55.44	$51.04	$204.16	$0.00	$0.00	$102.08
e/Manufact	Pounds						88	176			88
08/25&09/21/89	Price/lb.						$0.5800	$0.5800			$0.5800
	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$51.04	$102.08	$0.00	$0.00	$51.04
Date/Manufact	Pounds						88	44			
04/22&04/23/90	Price/lb.						$0.6000	$0.6000			
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$0.00	$52.80	$26.40	$0.00	$0.00	$0.00
Date/Manufact	Pounds	44	44					88			
03/27/90	Price/lb.	$0.7400	$0.7400					$0.6000			
Bioproducts	total costs	$32.56	$32.56	$0.00	$0.00	$0.00	$0.00	$52.80	$0.00	$0.00	$0.00
Date/Manufact	Pounds			88		88		44			44
06/07/90	Price/lb.			$0.6900		$0.6500		$0.6000			$0.6000
Bioproducts	total costs	$0.00	$0.00	$60.72	$0.00	$57.20	$0.00	$26.40	$0.00	$0.00	$26.40
Date/Manufact	Pounds					44		44	88		
06/29/90	Price/lb.					$0.6500		$0.6000	$1.3300		
Bioproducts	total costs	$0.00	$0.00	$0.00	$0.00	$28.60	$0.00	$26.40	$117.04	$0.00	$0.00
TOTALS	Pounds	44	44	88	110	616	836	968	88	0	748
	Avg Price/lb	$0.7400	$0.7400	$0.6900	$0.7600	$0.6841	$0.6041	$0.5868	$1.3300	$0.0000	$0.5859
	Cost	$32.56	$32.56	$60.72	$83.60	$421.42	$505.06	$568.04	$117.04	$0.00	$438.24

ORANO TOTALS

Pounds	3542
Avg Price/lb	$0.6378
Cost	$2,259.24